Amendments to the Claims:

A clean version of the entire set of pending claims, including amendments to the claims, is submitted herewith per 37 CFR 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) An apparatus (100) for wirelessly communicating a leading bit string comprising a header and a body, and a trailing bit string comprising a header and a body (340), the apparatus comprising:

an encoder (104) configured for encoding data (332) to form the body of the leading bit string, and forming the header (320) of the trailing bit string to include at least one bit of a parameter to be used by a receiver (112) in decoding the encoded data (356); and

a transmitter (108) configured for transmitting to the receiver a wireless signal representing at the receiver (112) the leading bit string and then the trailing bit string.

2. (Currently Amended) The apparatus of claim 1, wherein the receiver (112) comprises a digital television receiver.

3. (Currently Amended) The apparatus of claim 1, wherein said encoder (104) is further configured for creating said bit strings so that a parameter in at least one of the leading and trailing bit string headers is utilizable by an equalizer (156) in said receiver (112) to resolve a signal that embodies at least one of the leading and trailing bit strings (352).

4. (Currently Amended) The apparatus of claim 1, wherein said parameter is one of a plurality of parameters having bits, the plural bits of the parameters being divided into two bit groups each having an equal number of bits, one of said bit groups being utilized in forming the leading bit string header (324), the other bit group

being utilized in forming the trailing bit string header ~~(324)~~, each of said <u>bit</u> groups

further comprising a parity bit ~~generated based on the bits of equal number of~~ <u>for</u> the

<u>bit</u> group.

5. (Currently Amended) An apparatus ~~(100)~~ for wirelessly transmitting a bit-

stream comprising:

an encoder ~~(104)~~ configured for applying a fixed code to encode bits of the bit-

stream, one-by-one, to create an encoded bit-stream ~~(132, 320)~~; and

a transmitter ~~(108)~~ configured for modulating ~~(136)~~ the encoded bit-stream to

produce a signal whose frequency range at any given time is predetermined

independently of the code ~~(340)~~, and for wirelessly transmitting ~~(140)~~ said signal

within the frequency range.

6. (Currently Amended) The apparatus of claim 5, wherein the fixed code

~~(308)~~ comprises a linear recursive sequence.

7. (Currently Amended) The apparatus of claim 6, wherein the fixed code

~~(308)~~ is "000111101011001".

8. (Currently Amended) The apparatus of claim 6, wherein the encoder further

comprises a sequence generator ~~(200)~~ that includes: a four-element shift register

~~(204)~~, ~~the~~ <u>a</u> first element ~~(208)~~ <u>of the four-element shift register</u> having an input

terminal ~~(232)~~ and the fourth element ~~(220)~~ <u>of the four-element shift register</u> having

an output terminal ~~(228)~~; and an exclusive-OR (XOR) gate tap ~~(224)~~ disposed

between ~~the~~ <u>a</u> third ~~(216)~~ <u>element</u> and ~~the~~ fourth ~~(220) elements~~ <u>element of the four-

element shift register</u>, wherein said output terminal is connected to feed back to the

first element and to the XOR gate tap.

9. (Currently Amended) The apparatus of claim 5, wherein said bit-stream

before encoding is a parameter bit-stream ~~(316)~~ and said bits define a parameter in

[[the]]<u>a</u> header of a bit string comprising a header and a body ~~(324)~~, said encoder

being further configured for encoding a data bit-stream (328) and for combining the parameter and data bit-streams, after the parameter and data bit-streams have been encoded, to create said encoded bit-stream (324, 336) that is modulated (136, 340) to produce said signal whose frequency range at any given time is predetermined independently of the code, the parameter being defined so as to be utilizable by an equalizer (136, 352) configured to receive and to resolve said signal, the equalizer being part of a receiver (112) configured for decoding the encoded data bit-stream from said body (116, 356).

10. (Currently Amended) The apparatus of claim 5, wherein:

said encoder (104) is further configured for encoding data to form [[the]]a leading bit string body of a leading bit string comprising [[a]] leading bit string header and [[a]] the leading bit string body (336), and for forming [[the]]a header of a trailing bit string comprising [[a]] trailing bit string header and a trailing bit string body (324) so that the trailing bit string header includes at least one bit that represents a parameter defined by said bits at least one bit and to be used by a receiver (112) in decoding the data encoded to form the leading bit string body (116, 356), the encoder being further configured for combining (324, 336) the encoded data and said at least one bit in forming said encoded bit-stream to be modulated (136, 340); and

said transmitter (108) is further configured for transmitting to the receiver by means of said signal the leading bit string and then the trailing bit string (340).

11. (Currently Amended) The apparatus of claim 10, wherein the encoder performs bit-by-bit encoding of said bits is performed at least one bit one bit at a time (320), the data to be encoded in forming said body of the leading bit string not being encoded one bit at a time using a fixed code (332).

12. (Currently Amended) A method (300) for wirelessly communicating a leading bit string comprising a header and a body, and a trailing data bit string comprising a header and a body, the method comprising the steps of:

encoding data (120, 332);

forming the body of the leading bit string from the encoded data (336);

forming the header of the trailing bit string to include at least one bit of a parameter to be used by a receiver in decoding the encoded data (324); and

transmitting to the receiver a wireless signal representing at the receiver the leading bit string and then the trailing bit string (340).

13. (Currently Amended) The method of claim 12, wherein the receiver (112, 344) comprises a digital television receiver.

14. (Currently Amended) The method of claim 12, further comprising the step of utilizing, by an equalizer (156) in said receiver, a parameter in at least one of the leading and trailing bit string headers to resolve a signal that embodies at least one of the leading and trailing bit strings (340, 352).

15. (Currently Amended) The method of claim [[1]]12, wherein said parameter is one of a plurality of parameters having bits, the forming step further comprising the steps of:

dividing the plural bits of the parameters into two bit groups each having an equal number of bits (324);

generating a parity bit for each bit group, both parity bits being generated based on the bits of equal number of the group;

utilizing one of said bit groups in forming the leading bit string header (324); and

utilizing the other bit group in forming the trailing bit string header (324).

16. (Currently Amended) A method for wirelessly transmitting a bit-stream (140) comprising the steps of:

determining providing a fixed code (308);

applying the fixed code to encode bits of the bit-stream, one-by-one, to create an encoded bit-stream (320);

modulating the encoded bit-stream to produce a signal whose frequency range at any given time is predetermined independently of the code (340); and

wirelessly transmitting said signal within the frequency range (140, 344).

17. (Currently Amended) The method of claim 16, wherein the fixed code (308) comprises a linear recursive sequence.

18. (Currently Amended) The method of claim 17, wherein the fixed code (308) is "000111101011001".

19. (Currently Amended) The method of claim 17, further comprising the steps of:

providing a four-element shift register (204), [[the]] a first element (208) of the four-element shift register having an input terminal (232) and [[the]] a fourth element (220) of the four-element shift register having an output terminal (228);

disposing an exclusive-OR (XOR) gate tap (224) between [[the]]a third (216) element of the four-element shift register and the fourth (220) elementselement of the four-element shift register; and

connecting said output terminal to feed back to the first element and to the XOR gate tap.

20. (Currently Amended) The method of claim 16, wherein said bit-stream before encoding is a parameter bit-stream (316), said method further comprising the steps of:

forming said parameter bit-stream to contain a parameter that said bits define (316);

combining the parameter bit-stream with a data bit-stream, after the parameter and data bit-streams have been encoded (324, 336), to create said encoded bit-stream that is modulated to produce said signal whose frequency range at any given time is predetermined independently of the code (340);

configuring a bit string to comprise a header and a body, the header containing <u>encoded bits of</u> the encoded parameter and the body containing <u>encoded bits of</u> the encoded data bit-stream ~~(324, 336)~~; and

performing the forming, combining and configuring steps so that the parameter is utilizable by an equalizer that is to receive and to resolve said signal ~~(352)~~ and that is part of a receiver ~~(112)~~ for decoding the encoded data bit-stream ~~(356)~~.

21. (Currently Amended) The method of claim 16, further comprising the steps of: encoding data ~~(332)~~ to form [[the]]<u>a leading bit string</u> body of a leading bit ~~stream~~ <u>string</u> comprising a <u>leading bit string</u> header and <u>the leading bit string</u> body ~~(336)~~; forming [[the]] <u>a trailing bit string</u> header of a trailing bit ~~stream~~ <u>string</u>, comprising [[a]] <u>the trailing bit string</u> header and a <u>trailing bit string</u> body ~~(324)~~, to include at least one bit that represents a parameter defined by said ~~bits~~ <u>at least one bit</u> and to be used by a receiver in decoding the data encoded to form the leading bit string body ~~(356)~~; combining ~~(324, 336)~~ the encoded <u>data</u> and said at least one bit in forming said encoded bit-stream to be modulated ~~(340)~~; and transmitting to the receiver by means of said signal the leading bit string and then the trailing bit string ~~(140)~~.

22. (Currently Amended) The method of claim 21, wherein ~~the~~ bit-by-bit encoding of said ~~bits~~ <u>at least one bit</u> is performed one bit at a time ~~(320)~~, the data to be encoded in forming said body of the leading bit ~~stream~~ <u>string</u> not being encoded one bit at a time using a fixed code ~~(332)~~.